

CLAIMS

What is claimed is:

1 1 . A therapeutic compound comprising:
2 a drug moiety comprising paclitaxel,
3 at least one polypeptide drug carrier moiety having 70% by total weight of the
4 polypeptide drug carrier, glutamic acid, and 30% by total weight by total weight of the
5 polypeptide drug carrier, aspartic acid, wherein at least one glutamic acid is directly
6 bonded to aspartic acid, and
7 the drug moiety being covalently linked to the carrier moiety.

1 2 . The therapeutic compound of claim 1, wherein the drug carrier moiety comprises
2 a molecular weight in the range of about 20,000 daltons to about 50,000 daltons.

1 3 . The therapeutic compound of claim 1, wherein the drug moiety comprises from
2 about 10 percent to about 60 percent, by weight, of the therapeutic compound.

1 4 . The therapeutic compound of claim 1, wherein the drug moiety comprises from
2 about 20 percent to about 50 percent, by weight, of the therapeutic compound.

1 5 . The therapeutic compound of claim 1, wherein the drug moiety comprises from
2 about 20 percent to about 40 percent, of the therapeutic compound.

1 6 . The therapeutic compound of claim 1, wherein the amino acids can be in L form,
2 or D form, or a racemic mixture of L and D forms.

1 7 . The therapeutic compound of claim 1, wherein

1 the drug moiety comprises paclitaxel and is about 24 percent to about 30 percent,
2 by weight, of the therapeutic compound, and
3 the molecular weight of the therapeutic compound is from about 26,000 to about
4 30,000 daltons.

1 8 . A method for improving the solubility of a drug moiety comprising the steps of:
2 covalently conjugating the drug moiety with at least one polypeptide drug carrier
3 moiety, thereby creating a therapeutic compound, the therapeutic compound comprising:
4 the drug moiety comprising paclitaxel, and
5 at least one polypeptide drug carrier moiety having 70% by total weight of the
6 polypeptide drug carrier, glutamic acid, and 30% by total weight by total weight of the
7 polypeptide drug carrier, aspartic acid, wherein at least one glutamic acid is directly
8 bonded to at least one aspartic acid, and
9 the drug moiety being covalently linked to the carrier moiety.

1 9 . The method of claim 8, wherein the drug carrier moiety comprises a molecular
2 weight in the range of about 20,000 daltons to about 50,000 daltons.

1 10 . The method of claim 8, wherein the water solubility of the therapeutic compound
2 is greater than the water solubility of the drug moiety.

1 11 . The method of claim 8, wherein
2 the drug moiety comprises paclitaxel and is about 24 percent to about 30 percent,
3 by weight, of the therapeutic compound, and
4 the molecular weight of the therapeutic compound is from about 26,000 to about
5 30,000 daltons.

1 12 . A method for treating a condition comprising the steps of:
2 administering a therapeutically effective amount of a therapeutic compound
3 comprising:
4 a drug moiety comprising paclitaxel, and
5 at least one polypeptide drug carrier moiety having 70% by total weight of the
6 polypeptide drug carrier, glutamic acid, and 30% by total weight by total weight of the
7 polypeptide drug carrier, aspartic acid, and wherein at least one glutamic acid is directly
8 bonded to at least one aspartic acid, and
9 the drug moiety being covalently linked to the carrier moiety.

1 13 . The method of claim 12, wherein the drug carrier moiety comprises a molecular
2 weight in the range of about 20,000 daltons to about 50,000 daltons.

1 14 . The method of claim 12, wherein the condition is a prostate tumor.

1 15 . The method of claim 12, wherein
2 the drug moiety comprises paclitaxel and is about 24 percent to about 30 percent,
3 by weight, of the therapeutic compound, and
4 the molecular weight of the therapeutic compound is from about 26,000 to about
5 30,000 daltons.